Binomial Denominators (Conjugate)

a) $\frac{9}{\sqrt{11}-\sqrt{8}}$ $\times \frac{\sqrt{11}+\sqrt{8}}{\sqrt{11}+\sqrt{8}}$

$= \frac{9\sqrt{11}+9\sqrt{8}}{11-8}$

$= \frac{9\sqrt{11}+18\sqrt{2}}{3} = 3\sqrt{11}+6\sqrt{2}$

b) $\frac{\sqrt{7}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$ $\times \frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}-\sqrt{3}}$

$= \frac{\sqrt{35}-\sqrt{21}-\sqrt{15}+3}{5-3}$

$= \frac{\sqrt{35}-\sqrt{21}-\sqrt{15}+3}{2}$

c) $\frac{2\sqrt{2}+3}{4\sqrt{2}-5}$ $\times \frac{4\sqrt{2}+5}{4\sqrt{2}+5}$

$= \frac{8\sqrt{4}+10\sqrt{2}+12\sqrt{2}+15}{16\sqrt{4}-25}$

$= \frac{16+22\sqrt{2}+15}{32-25}$

$= \frac{31+22\sqrt{2}}{7}$

Feb 18-6:50 AM

What is a Conjugate?

$\sqrt{11}-\sqrt{8}$ original

$\sqrt{11}+\sqrt{8}$ conjugate

$-2\sqrt{3}+7\sqrt{6}$

$2\sqrt{3}-7\sqrt{6}$

$-2\sqrt{3}-7\sqrt{6}$

$2\sqrt{3}--7\sqrt{6}$

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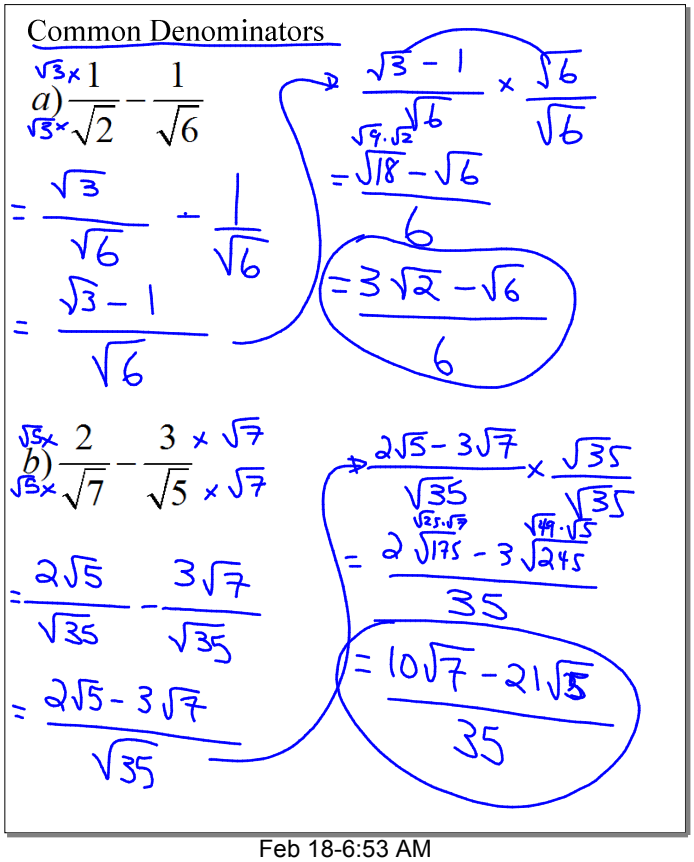

Feb 18-6:53 AM

Assignment: Pg. 139
14,15, 17
ALL Odds

Feb 18-6:55 AM